

TRANSPORTATION—SURFACE AND UNDERGROUND

§ 57.6200 Delivery to storage or blast site areas.

Explosive material shall be transported without undue delay to the storage area or blast site.

§ 57.6201 Separation of transported explosive material.

Detonators shall not be transported on the same vehicle or conveyance with other explosives except as follows:

(a) Detonators in quantities of more than 1,000 may be transported in a vehicle or conveyance with explosives or blasting agents provided the detonators are—

(1) Maintained in the original packaging as shipped from the manufacturer; and

(2) Separated from explosives or blasting agents by 4 inches of hardwood or equivalent, or a laminated partition. The hardwood or equivalent shall be fastened to the vehicle or conveyance. When a laminated partition is used, operators must follow the provisions of the Institute of Makers of Explosives (IME) Safety Library Publication No. 22, "Recommendations for the Safe Transportation of Detonators in a Vehicle with other Explosive Materials" (May 1993), and the "Generic Loading Guide for the IME-22 Container" (October 1993). This incorporation by reference has been approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies are available at MSHA, 4015 Wilson Boulevard, Room 728, Arlington, VA 22203, and at all Metal and Nonmetal Mine Safety and Health district offices, or available for examination at the Office of the Federal Register, 800 North Capitol Street NW., 7th Floor, suite 700, Washington, DC.

(b) Detonators in quantities of 1,000 or fewer may be transported with explosives or blasting agents provided the detonators are—

(1) Kept in closed containers; and

(2) Separated from explosives or blasting agents by 4 inches of hardwood or equivalent, or a laminated partition. The hardwood or equivalent shall be fastened to the vehicle or conveyance. When a laminated partition is used, op-

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§ 57.6202 Vehicles.

(a) Vehicles containing explosive material shall be—

(1) Maintained in good condition and shall comply with the requirements of subpart M of this part;

(2) Equipped with sides and enclosures higher than the explosive material being transported or have the explosive material secured to a non-conductive pallet;

(3) Equipped with a cargo space that shall contain the explosive material (passenger areas shall not be considered cargo space);

(4) Equipped with at least two multipurpose dry-chemical fire extinguishers or one such extinguisher and an automatic fire suppression system;

(5) Posted with warning signs that indicate the contents and are visible from each approach;

(6) Occupied only by persons necessary for handling the explosive material;

(7) Attended or the cargo compartment locked at surface areas of underground mines, except when parked at the blast site and loading is in progress; and

(8) Secured while parked by having—

(i) The brakes set;

(ii) The wheels chocked if movement could occur; and

(iii) The engine shut off unless powering a device being used in the loading operation.

(b) Vehicles containing explosives shall have—

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(1) No sparking material exposed in the cargo space; and

(2) Only properly secured nonsparking equipment in the cargo space with the explosives.

(c) Vehicles used for dispensing bulk explosive material shall—

(1) Have no zinc or copper exposed in the cargo space; and

(2) Provide any enclosed screw-type conveyors with protection against internal pressure and frictional heat.

§ 57.6203 Locomotives.

Explosive material shall not be transported on a locomotive. When explosive material is hauled by trolley locomotive, covered, electrically insulated cars shall be used.

§ 57.6204 Hoists.

(a) Before explosive material is transported in hoist conveyances—

(1) The hoist operator shall be notified; and

(2) Hoisting in adjacent shaft compartments, except for empty conveyances or counterweights, shall be stopped until transportation of the explosive material is completed.

(b) Explosive material transported in hoist conveyances shall be placed within a container which prevents shifting of the cargo that could cause detonation of the container by impact or by sparks. The manufacturer's container may be used if secured to a nonconductive pallet. When explosives are transported, they shall be secured so as not to contact any sparking material.

(c) No explosive material shall be transported during a mantrip.

§ 57.6205 Conveying explosives by hand.

Closed, nonconductive containers shall be used to carry explosives and detonators to and from blast sites. Separate containers shall be used for explosives and detonators.

**USE—SURFACE AND
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§ 57.6300 Control of blasting operations.

(a) Only persons trained and experienced in the handling and use of explo-

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sive material shall direct blasting operations and related activities.

(b) Trainees and inexperienced persons shall work only in the immediate presence of persons trained and experienced in the handling and use of explosive material.

§ 57.6301 Blasthole obstruction check.

Before loading, blastholes shall be checked and, wherever possible, cleared of obstructions.

§ 57.6302 Separation of explosive material.

Explosives and blasting agents shall be kept separated from detonators until loading begins.

§ 57.6303 Initiation preparation.

(a) Primers shall be made up only at the time of use and as close to the blast site as conditions allow.

(b) Primers shall be prepared with the detonator contained securely and completely within the explosive or contained securely and appropriately for its design in the tunnel or cap well.

(c) When using detonating cord to initiate another explosive, a connection shall be prepared with the detonating cord threaded through, attached securely to, or otherwise in contact with the explosive.

§ 57.6304 Primer protection.

(a) Tamping shall not be done directly on a primer.

(b) Rigid cartridges of explosives or blasting agents that are 4 inches (100 millimeters) in diameter or larger shall not be dropped on the primer except where the blasthole contains sufficient depth of water to protect the primer from impact. Slit packages of prill, water gel, or emulsions are not considered rigid cartridges and may be dropped.

§ 57.6305 Unused explosive material.

Unused explosive material shall be moved to a protected location as soon as practical after loading operations are completed.

§ 57.6306 Loading, blasting, and security.

(a) When explosive materials or initiating systems are brought to the blast